Claims

1. An esterification process for the reduction of acids in a hydrocarbon containing composition, said process comprising contacting the hydrocarbon containing composition including hydrocarbons of less than 24 carbons with an esterification catalyst at esterfication temperature and pressure.

2. An esterification process as claimed in claim 1, wherein the hydrocarbon containing composition is a C_4 to C_{20} hydrocarbons containing composition.

3. An esterification process as claimed in claim 1, wherein the hydrocarbon containing composition is a Fischer-Tropsch (FT) condensate fraction.

4. An esterification process as claimed in claim 1, wherein the esterification catalyst includes one or more catalytically active metal oxides.

5. An esterification process as claimed in claim 4, wherein the metal oxides include one or more oxides selected from transition metals in group Ib to VIIIb.

6. An esterification process as claimed in claim 4, wherein the metal oxide consists of molybdenum oxide or tungsten oxide.

7. An esterification process as claimed in claim 4, wherein the molybdenum, the tungsten, or any other transition metal oxide is supported on a substrate.

8. An esterification process as claimed in claim 7, wherein the substrate is alumina, silica-alumina, or silica.

9 An esterification process as claimed in claim 1, wherein the esterification catalyst is a catalyst selected from the group of transition metal oxides in group Ib to VIIIb on

alumina catalyst, including molybdenum oxide on alumina catalyst and tungsten oxide on alumina catalyst, .

10. An esterification process as claimed in claim 1, wherein the esterification temperature is from 100°C to 320°C.

11. An esterification process as claimed in claim 10, wherein the esterification temperature is from 170°C to 250°C.

12. An esterification process as claimed in claim 11, wherein the esterification temperature is from 190°C to 210°C.

13. An esterification process as claimed in claim 1, wherein the esterification pressure is from atmospheric pressure to 100 Bar.

14 An esterification process as claimed in claim 13, wherein the esterification pressure is from 1 to 55 Bar.

15. An esterification process as claimed in claim 14, wherein the hydrocarbon condensate fraction is a distilled fraction from the FT condensate fraction.

16. An esterification process as claimed in claim 1, wherein the hydrocarbon containing composition has an acid level of 0.5 mg KOH/g or higher.

17. An esterification process as claimed in claim 16, wherein the acid level in the hydrocarbon containing composition is up to 12 mg KOH/g.

18. An esterification process as claimed in claim 3, wherein the alcohol to acid ratio in the FT hydrocarbon is between 9 and 92 on a molar basis.

19. An esterification process as claimed in claim 3, wherein methanol or another alcohol is added to the FT hydrocarbon feed to increase the alcohol to acid ratio.

20. An esterification process as claimed in claim 1, wherein the product of the process has an acid level of less than or equal to 0.5 mg KOH/g.

21. An esterification process as claimed in claim 20, wherein the product of the process has an acid level of from 0.1 mg KOH/g to 0.3 mg KOH/g.

22. An esterification process as claimed in claim 1, wherein the process is carried out in a continuous flow reactor.

23. An esterification process as claimed in claim 1, wherein the process is carried out at an LHSV of from 0.1 to 5 h^{-1}.

24. An esterification process as claimed in claim 23, wherein the process is carried out at an LHSV of from 0.5 to 2 h^{-1}.